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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,984	12/18/2001	Viktor Van Stoller	Mo-6617/STA-155	6679

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EXAMINER

RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/914,984

Applicant(s)

STOLLER ET AL.

Examiner

Mark Ruthkosky

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 22-43 is/are pending in the application.
- 4a) Of the above claim(s) 30-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 22-30, 42 and 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims 22-29 and 42-43 in Paper No. 11 is acknowledged.

### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/EP00/01667, filed on 2/28/2000.

### ***Information Disclosure Statement***

3. The information disclosure statement filed 11/18/2002 has been placed in the application file, and the information referred to therein has been considered as to the merits.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 22, 26-29 and 42-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claim 22, the nickel hydroxide is noted to have a pastel green color that does not change in the atmosphere for 4 weeks. It is not clear from

the specification or the claims, specifically what the atmosphere may be as the specification discusses a variety of different atmospheres.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 22-25, 27-29 and 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Watada et al. (JP 10-021,901.)

The instant claims are to a coated nickel hydroxide having a cobalt (II) hydroxide coating that is stable to oxidation.

Watada et al. (JP 10-021,901) teaches a nickel hydroxide active material having a cobalt (II) hydroxide coating that is stable to oxidation (see the abstract). The cobalt (II) hydroxide coating is in the alpha-state, which is stable to oxidation. The cobalt compound may also include an additive doping element, such as aluminum, and weak organic anions, including carbonate anions in the range of 1-200 mmol. The nickel compound may also include additives, such as transition metals, in an amount of 0.2-25 % (wt.), (see pp. 34-46). The material is added as a coating to a substrate and is used as a cathode active material in a secondary battery.

With regard to claim 22, the reference teaches the same chemical compounds as in the instant application and does not teach the oxidation of nickel (II) to nickel (III), therefore, the oxidation state of nickel will inherently remain in the (II) oxidation state and the corresponding

Art Unit: 1745

color will remain green due to the oxidation state. With regard to claim 23, the reference teaches the same chemical compounds as in the instant application and does not teach the oxidation state of cobalt to increase to the (III) oxidation state, therefore the oxidation state will inherently remain in the (II) oxidation state. With regard to claim 29, the reference does not teach the nickel hydroxide to have water molecules in the structure and, therefore, the structure will have less than 10% water.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watada et al. (JP 10-021,901) in view of Yano et al. (US6, 007,946.)

Watada et al. (JP 10-021,901) teaches a cathode active material in a secondary battery including a nickel hydroxide active material having a cobalt (II) hydroxide coating that is stable to oxidation as previously described. Watada et al. (JP 10-021,901) does not teach the material to have an average particle size of 0.5-500  $\mu\text{m}$ . Yano et al. (US 6,007,946) teaches a cathode active material in a secondary battery including a nickel hydroxide active material having a cobalt hydroxide coating. The examples show that the active material includes a cobalt-coated, nickel hydroxide active material with a mean diameter of 10  $\mu\text{m}$ . It would be obvious to one of ordinary skill in the art at the time the invention was made to prepare an active material with an

Art Unit: 1745

average particle size of 0.5-500  $\mu\text{m}$  as the material will have a large surface area for electrochemical activity and electron transfer. Further, one of ordinary skill would recognize the desirability of an average particle size of 0.5-500  $\mu\text{m}$  to form a uniform mixture in an electrode and provide a high concentration of active material for increased capacity. The artesian would have found the claimed invention to be obvious in light of the teachings of the references.

*Examiner Correspondence*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 703-305-0587. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:00.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 703-308-2383.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Mark Ruthkosky

Patent Examiner

Art Unit 1745

*Mark Ruthkosky*  
4/30/03